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Title: NONLINEAR SATURATION OF CROSS-BEAM ENERGY TRANSFER IN TOP9 EXPERIMENTS ON THE OMEGA LASER FACILITY

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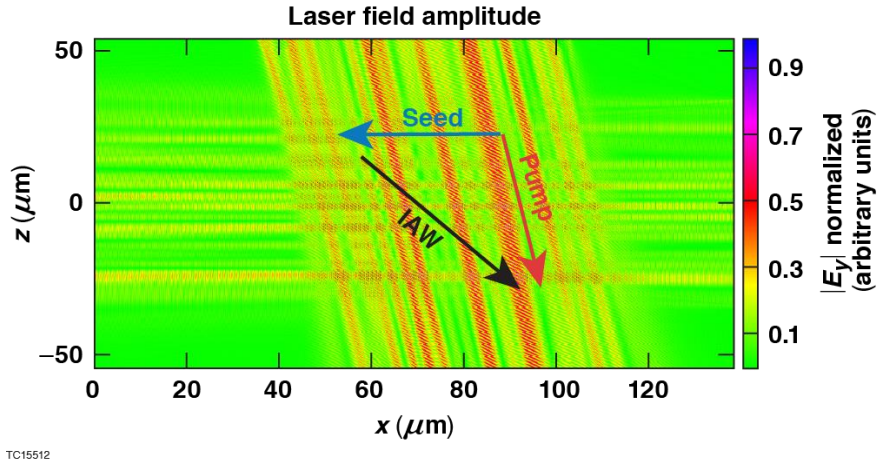
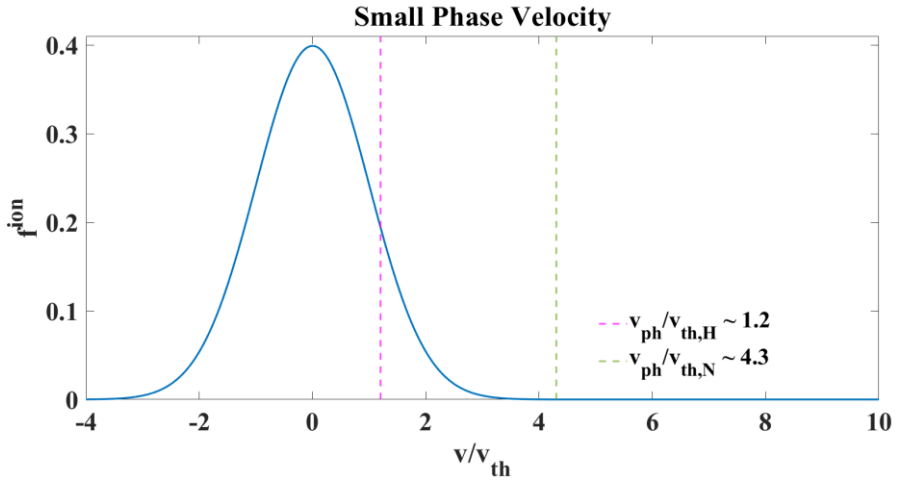
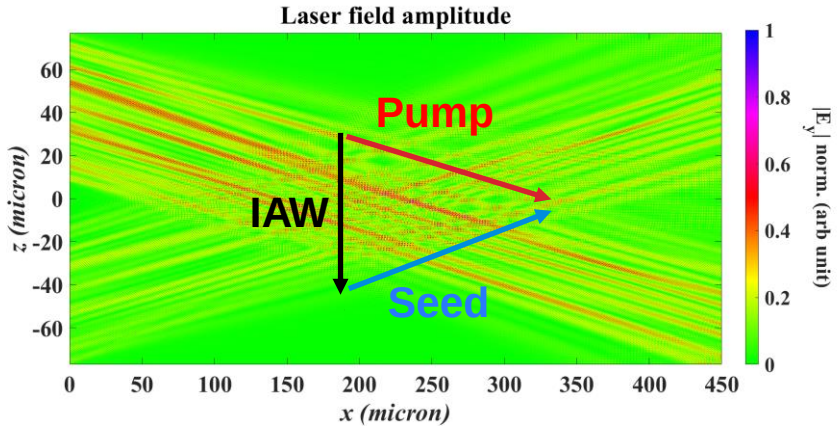
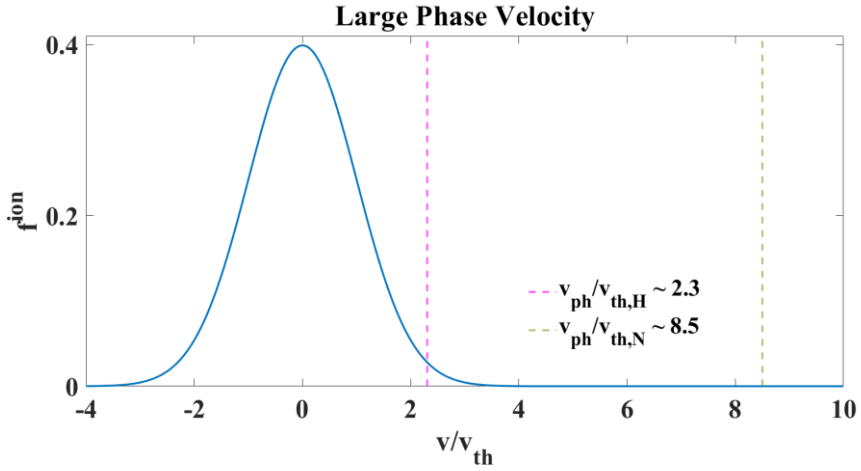
Collisional VPIC simulations were performed to model the focused CBET experiments conducted on the OMEGA TOP9 platform. The ion acoustic wave phase velocity depends on the geometry and plasma density which can vary widely in ICF implosions.









The decrease in the electrostatic energy tracks the gain evolution